Committee on Resources

Statement

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TO
U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON RESOURCES
OVERSIGHT HEARING ON THE ABANDONED MINE RECLAMATION NEEDS OF THE PENNSYLVANIA ANTHRACITE FIELDS
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REDINGTON HALL
UNIVERSITY OF SCRANTON
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Good afternoon, Mr. Chairman, members of the Committee and Congressmen Kanjorski and Holden. My name is Alex Rogers and I am pleased to appear today on behalf of two local groups that have worked tirelessly on the abandoned mine reclamation needs of the Pennsylvania Anthracite Fields - the Steering Committee for the Upper Susquehanna-Lackawanna Watershed American Heritage Rivers Initiative and the Pennsylvania GIS Consortium, a non-profit organization jointly administered by Wilkes University and King's College, and based in Wilkes-Barre, Pennsylvania.

Thank you for the opportunity to testify here today and thank you for your interest in the environmental and economic health of Northeastern Pennsylvania.

The Devastating Environmental Effects of Decades of Unregulated Mining

Just a few weeks ago, this nation celebrated the completion of the 20th Century, which Henry Luce and others have aptly called America's Century. It was indeed America's Century and we can be proud of many national achievements - the spread of our free-market democracy across the globe, major advances in science and medicine, giant innovations in technology, and an economy that charges forward to new heights with each technological advancement.

But as we stand at the gateway to the 21st Century, we face important challenges that demand prompt and

thoughtful attention. And as we reflect on how far we've come and where we hope to be one hundred years from now, we should seize this opportunity to consider new ways to solve pressing environmental and economic problems in regions of the country that have not enjoyed the robust growth and prosperity in recent years.

Here in Northeastern Pennsylvania, we face a critical challenge that has economic, environmental and social implications: repairing our land and water from the devastating effects of unregulated anthracite coal mining that took place decades ago. When this nation stood at the gateway to the 20th Century, it was anthracite coal - and the hundreds of thousands of anthracite mine workers in this region -- that fueled the industrial revolution and helped make America the industrial capital of the world. But today, in the dawn of the 21st Century, we ask for - and need - help in return. We need the federal government to help us repair the devastating environmental consequences of anthracite mining. Cleaning the region's environment will lift the local economy and quality of life.

It is bad enough that countless mineworkers lost their lives in the mines and worked under deplorable conditions. But it is even worse that the descendants of this region's mineworkers still have much to be saddened about - the region's environment and economy are still hampered and scarred, decades later, by the thousands of acres of damaged and abandoned mine land that dot the landscape. Today - as with every day in Northeastern Pennsylvania - more than 200 million gallons of acid mine drainage will flow from this region's mountains and strip-mined holes into the Susquehanna River Basin. And today - as with every day - this acid mine drainage will contain 740 tons of sulfate and 51 tons of iron. And today - as with every other day - the Susquehanna River will flow into the Chesapeake Bay. Not surprisingly, EPA has concluded that this acid mine drainage from Northeastern Pennsylvania is the single largest source of industrial pollution in the Chesapeake Bay.

If our nation has the technology to broadcast this hearing live by satellite to a television set or computer monitor in any corner of the world, then surely we have the capability to clean Northeastern Pennsylvania's land and water.

The Scars of Anthracite Mining -- A $2 Billion Repair Bill

The Office of Surface Mining reports about the anthracite region paint a bleak picture of the devastating environmental problems caused by past mining. OSM estimates that it will cost $2 billion to repair the Priority 1 and 2 problems in Northeastern Pennsylvania. But to date, the federal government has only completed one-tenth of the necessary cleanup effort - less than $200 million on a $2 billion problem. That is only a small down payment, we have a lot more to do. Unfortunately, under the current program, the federal government invests less than $10 million per year to repair the anthracite region in Northeastern Pennsylvania.

At this snail's pace, we will mark two more centuries before Northeastern Pennsylvania's land and water are as clean as they were before the unregulated mine practices. Today, the anthracite region still has well in excess of 100,000 acres of abandoned mine land; hundreds of miles of polluted streams; more than 1,000 acres of dangerous piles of coal waste and embankments; 780 acres of mine pits; and nearly 1,000 acres of underground mine fires. The list of problem sites goes on and on - and we cannot afford to wait 200 more years.

On this Committee's tour of the region today, you saw huge black mountains of coal waste and slate -

known as culm piles -- that dot this region's otherwise beautiful landscape. These black piles are the unfortunate tombstones to the anthracite mining industry. And they are the barriers that stand between today's environmental and economic difficulties and tomorrow's healthier and more robust Northeastern Pennsylvania.

Ask local residents who live adjacent to culm banks, dangerous stripping pits, and polluted (sometimes foul smelling) streams - they will tell you that this environmental catastrophe is a constant threat to their health and safety.

Ask the Greater Wilkes-Barre or Scranton Chamber of Business and Industry - they will tell you that the region has lost excellent prospective employers, and good paying jobs, because of this damaged former mine land.

Ask the Director of the Office of Surface Mining - she will tell you that after touring this region in May 1998, she concluded it was among the worst in the nation in terms of damaged land and polluted water.

Ask local conservation groups - who have walked the scarred land, tested the polluted water and soil, and continue to raise public awareness about the need to fix acid mine water problems.

And ask the Chesapeake Bay environmental and water groups - they will tell you that acid mine pollution from Northeastern Pennsylvania is the largest source of industrial pollution in the Chesapeake Bay. Indeed, cleaning up Northeastern Pennsylvania is not only good for this region, it is good for the millions of our neighbors to the south, all the way down to Maryland and Delaware.

A Major Hindrance to the Region's Full Economic Recovery

In addition to critical health, safety, and environmental concerns, the remnants of the anthracite industry have impeded the region's economic growth.

As I mentioned, the local Chambers of Commerce know first-hand that businesses have opted not to locate here because of the abandoned mine land sites that they view as unsightly, an environmental threat, and a reflection on the state of the local economy.

How else does this abandoned mine land impede economic growth?

Dwindling Supply of Flat Land and Clean Water. We face a dwindling supply of clean flat land and clean water for businesses considering opening facilities in the region. If we want to attract new business but lack the funds to clean our abandoned mine sites and brownfields, we will face a stark and troubling choice - either fail to attract those new businesses looking for available flat land or create that available land by destroying pristine greenways. That is an awful choice and one that we do not have to make if we clean this abandoned mine land. And the same holds true for our water supply - if we can offer prospective businesses an abundant supply of clean water, they will be drawn to this region.

Empirical data about population and employment levels also confirm that this region has not enjoyed the robust economic growth that our neighbors all around us have enjoyed in recent years.

Population Loss. The Scranton/Wilkes-Barre/Hazleton Metropolitan Statistical Area has experienced a steady population loss for many years. In fact, the most recent U.S. Census Bureau statistics reveal that this

area is virtually leading the nation in population decline. From 1990 to 1998, this MSA lost more than 23,000 people (3.6 percent). Of the 349 MSAs nationwide, the Scranton/Wilkes-Barre/Hazleton MSA experienced the third largest loss in population.

And if we look further back in time, the story only gets worse. According to an excellent data base maintained by the Economic Development Council of Northeastern Pennsylvania, from 1980 to the present, the population in our MSA has declined 4.2 percent - and the population loss in the cities of Wilkes-Barre, Scranton, and Hazleton has been even more dramatic: a 14.7 percent loss in Wilkes-Barre, a 17.4 percent decline in Scranton, and a 7 percent loss in Hazleton. And we know that this population decline in cities does not merely reflect a migration to neighboring suburbs because the countywide population numbers have also steadily declined: a 5.2 percent population loss in Luzerne County (home to Wilkes-Barre and Hazleton) and a 7.5 percent population decline in Lackawanna County (in which Scranton is located). This population loss was in addition to the 30 percent reduction in population from 1930 to 1970. Economic development experts all agree that a major cause of this population loss is the lack of available good jobs for young adults who were raised in Northeastern Pennsylvania, but who leave the region after college.

Higher Unemployment Levels. At all times from 1980 to late 1999, Northeastern Pennsylvania has experienced consistently higher unemployment rates than the national and state average. It was not until May 1999 that our region's unemployment rate dropped below 5 percent - and in several years between 1980 and the present, our region's unemployment rate was two or three percentage points higher than the national average, while other region's in the so-called rustbelt enjoyed unemployment rates below the national average. We have certainly made significant job growth gains since 1980 - when the unemployment rate hovered near 10 percent (and reached as high as 11 percent in Luzerne County in 1985) - but we still have room for more progress and job growth. In fact, the availability of industrious workers is one of this region's attributes.

Thankfully, this region's economy has improved in recent years - and we are attracting an impressive and diverse range of businesses to the area. But the area cannot reach its economic potential, cannot encourage its youth to remain in the area, and cannot encourage others to move here without cleaning up the abandoned mine land and the polluted water.

This region is not asking for any special treatment or handout - it is prepared to compete against its neighboring regions for new business and higher-paying wages. And indeed it has, transforming its economy from one based largely on a single industry - anthracite and then the needle trades - to one that is diversified. But the playing field is not level because this region is saddled with the lingering environmental effects of unregulated mining practices. In short, this region is severely disadvantaged by the environmental problems posed by unclean waterways and former mine lands.

This may sound like a daunting challenge, but it is not insurmountable. We can and must mend this region's land and water -- and elevate the region to new levels of environmental quality and economic prosperity. That should be our shared obligation in this morning of the new century.

Regional Cooperation - the American Heritage Rivers Initiative

In fact, rather than ignore or cower from the challenge of repairing this region's abandoned mine land that we've inherited, this region is confronting this project head-on, with sensible first steps toward regional planning and cooperation. This effort is inspired by our recognition that cleaning our land and water is not only good environmental policy, but it is also good economic policy.

This environmental and economic recovery effort has received a major boost from Congressman Kanjorski and other members of the region's Congressional Delegation. When President Clinton invited regions across the country to apply for American Heritage River designation, Congressman Kanjorski formed a broad coalition of regional political, business, academic and community environmental leaders, who sat down together to prepare the application on behalf of the Upper Susquehanna-Lackawanna Watershed. Leaders and concerned citizens from Wayne and Susquehanna in the north to Northumberland and Schuylkill County in the south joined together in support of our successful application. The watershed that has been designated an American Heritage River comprises nearly 2,000 square miles of land, almost 1,600 miles of rivers and streams, and is home to approximately 640,000 people. The entire anthracite field includes the designated region, plus an additional 1,600 square miles - for a total of 3,600 square miles.

Importantly, the American Heritage Rivers Initiative has brought these residents and communities together in a cooperative, regional effort to clean abandoned mine lands and contaminated water - and thereby boost the economy. This is the top priority of the American Heritage Rivers Initiative in Northeastern Pennsylvania, which is strongly supported throughout the region. But the American Heritage Rivers Initiative is only one piece of the recovery plan. It will take much more to tackle this critical challenge.

An Environmental Master Plan for Northeastern Pennsylvania

We have already made important progress on that major effort. First, and foremost, we are undertaking a comprehensive GIS (Geographic Information Systems) Watershed Plan for the Upper Susquehanna-Lackawanna American Heritage River. This GIS Master Plan will contain extensive data about the region's environment, population, economics, physical infrastructure, natural resources, and other attributes. As you know, a Geographic Information System portrays a spatial relationship for environmental features (e.g., forests, streams, wetlands, wildlife habitat, etc.) and the local infrastructure (e.g., roads, cities, utilities, building foundations, sewer systems, etc.).

Once completed, our GIS database will facilitate smart, regional planning - and will offer a valuable resource to guide Northeastern Pennsylvania on numerous economic development and environmental remediation projects. For example, we can use GIS to identify vegetation cover, wetlands, streams, roads, parks, housing developments, and water treatment facilities. The GIS also enables planners to readily determine how many acres of forest or wetlands are within a one-mile radius of a housing development, park, or water treatment plant. The GIS will further pinpoint the sources of water pollution, where the impacts are located, how the topography of the land affects that water flow, and the costs of cleaning the site.

The Pennsylvania GIS Consortium -- in partnership with numerous federal, state, and local governmental entities, as well as community groups - is performing this work. On the federal level, the Consortium is working closely with the U.S. Army Corp of Engineers, USGS, FEMA, HUD, EPA, and the Department of Interior.

Using the most sophisticated computer technology, our experts are developing the first integrated database inventory and GIS in the region. It will include a comprehensive inventory of the region's environmental problems as well as ongoing and future land and water restoration and resource development projects, including:

(a) acid mine drainage outfalls;

(b) abandoned mine land sites;

(c) sewage and storm water overflows;

(d) non-point source pollution, including farm water runoff;

(e) all major sources of pollution in the watershed;

(f) wetlands;

(g) current and planned resource and economic development projects;

(h) hydrological flow models in which to design clean-up projects.

Importantly, our GIS database will accelerate cost-effective environmental restoration projects and encourage even greater cooperation among the diverse communities in the region. It will be a tremendous decision-support tool for a wide range of projects. We intend to make this data readily accessible to community leaders and groups in order to promote sensible land-use planning and smart development. We will also provide GIS training to local municipal planners to ensure that they take maximum advantage of the wealth of information in the database.

We are well underway on this project, thanks to Congressman Kanjorski's leadership and both Congressional and Administrative support. For many months, the Pennsylvania GIS Consortium has been hard at work on our Watershed Plan and we expect to complete the first phase of this work by this summer.

From the outset, we have strived to make this a collaborative effort. To that end, a working group of federal, state, and local partners is meeting this Friday, January 28th, to discuss the progress of the Watershed Plan and the work that lies ahead. We will discuss data inventory and compilation, identification of water resource and environmental problems, GIS database management for the watershed, and examples of proposed watershed analysis. We intend to hold monthly meetings from January to April to explore related topics of acid mine drainage, hydrology and water quality, and combined sewer overflows.

This comprehensive GIS Watershed Plan is focused primarily on environmental features and problems in the anthracite coal region. However, we also expect that the data and GIS decision-support tools will be hugely valuable for land use planning, economic development, and environmental remediation for all local governments and administrative agencies in the region. The Watershed Plan is focused on three major environmental problems in the region: abandoned mine lands, acid mine drainage, and combined storm overflows. In addition, the Plan will address other related issues of land use, including agricultural runoff of sediments and nutrients or urban storm water runoff.

The Watershed Plan has been designed in three phases. The first phase involves an extensive inventory and compilation of relevant environmental and infrastructure data that can be integrated into a GIS and used in deciding how to remedy environmental problems. Our team of scientists and engineers is working to: (1) define needed GIS data within a watershed framework, (2) identify GIS data gaps that will require additional data acquisition and longer-term environmental measurements and monitoring, and (3) obtain, develop, and evaluate relevant ecological and watershed GIS assessment tools, including hydrologic, geo-chemical, and biodiversity models. This first phase also involves comparative assessments of specific subwatersheds of individual tributaries, including the Lackawanna River and Nescopek Creek.

Existing data will be used in a "broad-paint-brush" approach to GIS analysis that will enable us to identify those areas of Northeastern and Central Pennsylvania in which environmental impacts appear severe and complex (i.e., subwatersheds that have impacts from all three major problems), where human population densities are high, and where local, state, federal, and private sources of funding are limited for pollution control, environmental cleanup, and ecological restoration. With this information, communities in the American Heritage River watershed can begin to set priorities for environmental cleanup and sustainable development from a comprehensive, regional approach.

In the second phase of the GIS Watershed Plan, we will seek to acquire new GIS data necessary to conduct more detailed and thorough GIS watershed analyses. This additional data - including more detailed (spatial resolution) GIS data and GIS decision support tools - will enable us to assess the American Heritage River Watershed as a single ecosystem. It will also provide sufficient technical rigor for necessary engineering design to support environmental reclamation activities. For example, recent satellite imagery will provide data on land cover categories such as forests, urbanized areas, and mining features. We need this GIS data for hydrologic modeling of runoff and water budgets for individual subwatersheds of specific tributaries. Aerial photography will be processed in digital form (for computerized mapping) to provide an important source of elevation data and cultural features needed also for modeling of storm water, stream flow, and watershed runoff. Additional GIS environmental data may also be digitized to include information about soil quality, mining pits and wastes, and wetlands.

In addition, we intend to monitor stream flow, water chemistry, and ecological communities at specific sites in each major tributary. We will also conduct field surveys using the Global Positioning System. The GIS data will be employed for more precise and rigorous applications of relevant ecological and watershed GIS assessment tools, including hydrologic (water budgets), geochemical (water chemistry), and biodiversity models considered and evaluated in Phase One of the project.

In order to provide us with the necessary information to undertake land and water reclamation, this data acquisition should include the following:

Remote Sensing: New satellite imagery is needed to provide a comprehensive GIS database on the entire Anthracite Field for mining impact assessment, re-vegetation and reclamation applications, and land use and land cover data for watershed, floodplain, and hydrologic modeling. Existing data from EPA is nearly 10 years old and out of date for watershed clean up and reclamation. The estimated cost for remote sensing is $2 million.

Watershed Monitoring and Water Quality Instrumentation: Before we can reclaim watersheds, mining impacted sites, and streams, we need detailed measurements (approximately on a monthly basis) of water chemistry and hydrology on all major stream tributaries impacted by mining. As part of the watershed plan, we estimate a start-up effort that includes detailed monitoring at selected high priority watersheds and "real-time" instruments for all three of the major anthracite fields in the region. The estimated cost is $4 million.

GIS Digitizing and CSO Applications: This component encompasses GIS digitizing of hard copy data needed for the Watershed Plan with an emphasis on soils, combined storm overflows, wastewater treatment facilities, and sewage collection systems. CSO modeling and analysis are also included. We have included real estate (parcel) conversion of land ownership for implementation of the Watershed Plan as part of the estimated composite cost of $4 million.

Advanced GIS Modeling, Database Management and Project Management: We anticipate that geochemical

and hydrologic modeling will be complex given the nature of subsurface aquifers impacted by underground mining. Database management and project management costs are also included in the estimated cost of $4 million for this aspect of the watershed plan.

The current estimate for the total cost of the GIS Watershed Plan, exclusive of aerial photography, is approximately $14 million. The aerial photography is another critical component of our assessment of the entire watershed. This photography, which is estimated to cost $11,750,000, will ensure that we have 1600 negative Scale Aerial Photography of the entire region suitable for 200-scale mapping.

The third phase of the Watershed Plan will integrate these data, modeling analyses, and assessments with 700-scale GIS engineering design applications to execute environmental reclamation and ecological restoration projects. This phase will also include monitoring efforts in the field to update GIS analysis to assess recovery and reclamation activities.

This Region Is Ready To Undertake Cost-Effective Cleanup Projects

Because of the hard work that the Pennsylvania GIS Consortium and others have already performed, we are poised to begin critical land and water restoration projects that have not yet received federal funding. While our long-term plans for the Watershed Plan are ambitious, we already have a significant level of knowledge to undertake high-priority, cost-effective projects this year. We can - and must -- put the shovel in the ground as soon as we have sufficient data to make smart decisions about reclamation projects. The Pennsylvania GIS Consortium is confident that we already have great quantities of data to start that process.

The three phases of the Watershed Plan that I have described today will overlap and, to the greatest possible extent, will proceed concurrently so that we do not need to wait until Phase Three is completed to start the land and water cleanup work that must get done. But the work already completed - and the data we anticipate gathering by this summer - will be extremely valuable in starting this process. With only the hope that federal funding would be forthcoming, we are well underway in the planning and analyzing phase, which is the necessary first step.

An Innovative Funding Proposal To Address This Pressing Need

In 1998, for the first time in thirty years, the federal government enjoyed a budget surplus, which has only grown larger in more recent years. We recognize that there are many competing demands and opinions about ways to invest this budget surplus. We know that there are many important and valuable programs that merit funding.

But Congressman Kanjorski has devised an innovative funding proposal that requires minimal cost to the federal government and that would stretch the value of the federal government's commitment to new levels: federal tax-credit bonds to support environmental and economic development initiatives. Under this proposal, a public authority incorporated pursuant to state law could issue bonds that would offer purchasers a federal tax credit based on the current market yield on 30-year, tax-exempt debt obligations. At the outset, the authority would be required to invest 18-20 percent of the bond proceeds into a reserve or sinking fund that would increase in value over the 30-year period of the bond issue in order to pay the bonds at maturity. Meanwhile, the remaining 80 percent of the bond proceeds would be devoted to the environmental and economic development projects outlined in a comprehensive regional plan. As for the purchasers of the bonds, in lieu of annual interest payments, they would be entitled to a federal tax credit equal to the value of their bonds multiplied by the long-term municipal bond rate.

This funding proposal would result in only a minimal loss of federal tax revenues, while generating significant sums to fund environmental and economic development projects. The proceeds of the bond issue would be used to purchase, restore, preserve, and redevelop abandoned mine land. We would reclaim the land and cleanup the Susquehanna and Lackawanna Rivers and their tributaries pursuant to a thoughtful land use planning proposal that would be driven by local needs and priorities - and informed by local communities, rather than Washington, D.C. We expect that much of the land would be returned to pristine conditions and reserved for open space and recreational purposes; other parcels would be used for economic development.

The financing scheme will work in Northeastern Pennsylvania to reclaim abandoned mine land - and it can work in other regions of the country to address their pressing needs. Because of our work on the GIS Watershed Environmental Master Plan, we are prepared to being reclamation work this year.

How can we maximize federal oversight of this program? Congressman Kanjorski has drafted legislation to establish the Anthracite Region Reclamation and Development Trust as a wholly owned government corporation. With powers similar to those of other federal government corporations, this Trust would oversee the investment and expenditure of the bond proceeds, including that portion invested in the reserve fund. The Trust would also assist in the development and review of regional land and water reclamation plans - such as the Watershed Plan that the Pennsylvania GIS Consortium is developing. If the Trust approves a regional plan, it would then have the authority to grant the certificate to the regional authority to issue the tax-credit bonds and then oversee the reclamation projects.

Conclusion

It is time for bold and innovative steps to clean this region's land and water - and to begin a new renaissance in Northeastern Pennsylvania. The existing federal program is not working because it funds clean-up projects at a snail's pace. This region has suffered long enough.

Let's try a new prescription for progress. Let's try a new federal tax-credit financing program. Let's clean our mine-ravaged land once and for all. Let's give businesses another reason to locate here, in addition to our industrious workforce and proximity to major metropolitan markets. Let's give current residents a reason to remain here and raise their families here. And let's give those who left the region a reason to come back.

Thank you for this Committee's concern about the health of Northeastern Pennsylvania. I look forward to working with you on these proposals.

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